IN THE SPECIFICATION

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~.

Please REPLACE the paragraph beginning at page 9, line 18, with the following paragraph:

Initially, pulses to be shaped are split into respective frequencies with a diffraction grating 30, and a focus is achieved on a Fourier plane with a convex lens 31. If a plurality of LC-SLMs 32, which can modulate the intensity and the phase of passing light, are arranged on the Fourier plane, the intensity and the pulse of the entire pulse band can be operated in a frequency region. After being operated, inverse Fourier transform is performed for the pulses with a convex lens 33 and a diffraction grating 34, so that the pulses can be returned to a time domain. For the details of the principle of this waveform shaper, see the document "Opt. Lett. vol. 15, pp. 326-328, 1990". In principle, light beams having respective wavelengths of the light, for which Fourier transforming is performed in the diffraction grating 30, is passed through a liquid crystal spatial light modulator, suitable intensity and phase are given to each wavelength, and the inverse Fourier transform is performed for the light beams in the diffraction grating ~~33~~ 34 to return as a waveform on a time axis, so that a desirable waveform can be obtained. Adjustments of the intensity and the phase for each wavelength are made by mathematically representing a preferable waveform, by performing the Fourier transform to calculate the intensity and the phase of each frequency or wavelength component, and by controlling the liquid crystal spatial light modulator based on the calculation.

Please REPLACE the paragraph beginning at page 12, line 6, with the following paragraph:

If a diffraction grating having a large number of grooves is used, and if the incident angle is controlled to set $\cos\theta$ to a small value, a resolution of sub-nm can be achieved. In the meantime, if 128 liquid crystal modulators the width of which is 0.1 mm are arranged ~~by 128~~, the photofield of a bandwidth on the order of picoseconds can be operated.